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AUGUST

1950

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

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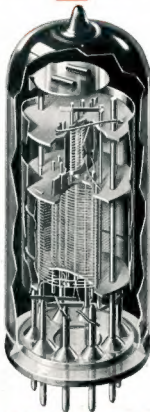
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## EDITORIAL



## "JAMMING THE HAMS"

This involves no invasion of the culinary art, but is intended by a recent press article to describe what is happening on the 40 metre band and elsewhere.

Foreign s.w. broadcast stations are said to have "dropped an iron curtain" between Amateurs of different nationalities, thereby "drowning out" one from the other. And so the jargon goes on; all very entertaining to the lay mind, and possibly amusing to the initiated.

There is, however, quite a different approach to this subject, and the thinking Amateur will doubtless realise that his hobby has lately received an injection of political significance at the hands of the Press which may endanger the privileges of close on 3,000 operators in this country. The careless comment; the burning personal opinion on international affairs; or the profound political conviction, find no place within the permissible limits of our experimental

licence, and rightly so. Any such phrases emanating from Amateur Stations, and so quickly caught up, may easily and promptly echo to our disadvantage in the high halls of Canberra.

It would require very little official ink thereafter to dispose of all our hard won privileges "for the period," and all would be left lamenting. We strongly advise all members of the W.I.A. to use the pledge of secrecy as a bar to Press curiosity as touching upon our International contacts. We urge also that discouragement should be given to any local or foreign contacts who may show a tendency to go "political." Rather should we seek to guide such QSOs into safer channels where the elements of study and good fellowship can continue to brace and strengthen the hobby of our choice.

FEDERAL EXECUTIVE

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# Balanced Impedance Matching for Aerial Coupling

BY J. G. REED,\* VK2JR, M.I.E. AUST.

Almost without exception, considerable care is taken to employ efficient coupling to the radiator during transmission. However, with the receiver, it is surprising to note how many experimenters pay little or no attention to the important factor of balanced coupling and impedance matching of the input circuit to the transmission lines.

The centre fed dipole is an excellent type of aerial for reception because of its inherent balance to ground, and, when employed as two half waves in phase (such as a 66 ft. centre fed unit) for 14 Mc. reception, the directional property assists in keeping QRM down to a very low order in the quadrants not broadside to the line of the radiator.

If the receiver seriously unbalances the feeder lines to the horizontal dipole, a strong vertical component will be introduced, and depending on the magnitude and phase of the various currents, the field pattern may be distorted badly, in addition to admitting noise interference from local vertically polarised ignition and domestic appliance generators.

Drawing No. 1 illustrates what happens during a special case of combined reception of vertical and horizontally polarised signals. The vertical component has a uniform phase characteristic which may be represented by a circle. The horizontal component of the dipole—which is bi-directional—has one component which is in phase with the vertical, and another which is 180° out of phase. This characteristic is represented by the figure eight diagram.

When the components of the vertical and horizontal currents are combined vectorially, the in-phase signals add, and the out-of-phase signals subtract. Assuming that both are of equal magnitude, the result will be a "heart-shaped" diagram which will readily be recognised by experimenters who have had service experience with direction finders. Instead of the resultant of circle and figure eight as indicated, it is possible to produce many forms of reception pattern when magnitudes vary. This may be proved by drawing the circle and figure eight to different scales and plotting the resultant. Rapid variation of magnitude or phase of either component will produce a synthetic form of fading. This will be noticeable with a signal being received from a relatively local station where portion of the signal comes horizontally and some of it vertically by reflection from the ionosphere.

An interesting sidelight to this random reception of multiple polarised signals is the exaggerated directional property attributed to some forms of "beam" aerials by their proud owners. When tested with receivers which are unbalanced with respect to ground, the

This article is based on the paper read by VK2JR to the Easter Convention of the North Coast Members of the W.I.A. also to the June Meeting of the Sydney Division.

Impedance matching and electrostatic balancing of the input circuit to the receiver plays an important part in obtaining interference free reception and full advantage of the directional properties of aerials.

interaction of vertical and horizontal components may be such as to give apparent high back-to-front ratio (refer to drawing 1). With a properly coupled transmitter the directional pattern may be rather mediocre. A well known Sydney experimenter employing a "GBPO" beam of "rotary bird perch dimensions" claimed a marvellous back-to-front ratio according to a reception test on a distant station, but when tested for transmission, this expensively erected radiator proved itself little better than a simple dipole with negligible back-to-front ratio.

As a subject for experimentation it may be possible to combine the signals from a horizontal dipole with those from a vertical aerial, through an appropriate semi-apericidal valve mixer to produce a controllable "heart-shaped" reception pattern for reduction of QRM from local stations during DX working. The writer is experimenting with this and may have more to say through "Amateur Radio" at a future date.

Elaborate coupling units with electrostatic screens have been used for coupling unbalanced receivers to balanced transmission lines. These have disadvantages in that continuous tuning is required and, in addition, due to the loose coupling between the primary and secondary windings, the reflected impedance of the receiver input to the line winding varies over such a wide range that matching with the transmission line becomes a difficult matter.

The writer has experimented to overcome this difficulty and has produced a wide-band iron dust core Balancing Transformer and Impedance Matching Circuit which provides a high coupling coefficient and retention of transmission line balance when coupled to the normal receiver with one input terminal at earth potential.

Drawing No. 3-4 illustrates the Standard Dummy Aerial characteristics and schematic connections from which it will be seen that the assumption of 300 ohms input impedance would be an all-round figure for the average receiver operating on short waves.

The original transformer developed employed a toroid core in the shape of a closed ring to limit pick-up from external fields. It is quite satisfactory to employ a cylindrical core if care is taken to shield the transformer. In one model the writer placed the wound tubular former in a paper lined screening can and rammed all round it a mixture of iron dust and binder with excellent results.

Precipitated iron powder may be purchased from any large chemical supply house as it is a standard item in school and college chemical laboratories for demonstrating the almost explosive rapidity of oxidation when thrown in its finely divided form into a flask of oxygen gas. Magnetite or its equivalent

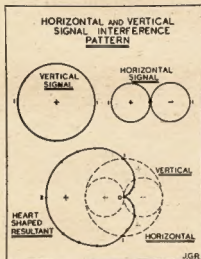


Fig. 1.

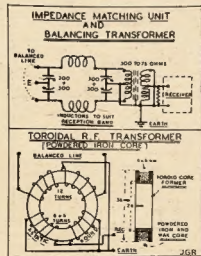


Fig. 2.

\* Chartered Engineer; 57 Kameruka Rd., Northbridge, N.S.W.



may be obtained by crushing several cores from "permeability tuned" receiver inductors.

Suitable formers for moulding a mixture of iron dust and magnetite and wax are easily constructed, and these may be for toroidal or cylindrical cores as desired.

Mix sufficient iron dust and paraffin wax to form the required core and melt into an easily worked paste over a stove hot-plate, using only enough wax to form a stiff paste. With a small spatula or end of a tea spoon form the mixture

For the average 300 ohm input receiver the transformer should have an effective 1:1 ratio employing 12 turns for the centre tapped primary or line winding and two sections of 12 turns each for the secondary or receiver winding. It is important to wind the latter in reversed sections.

Commence with the secondary winding by measuring out a little more than sufficient wire to complete the winding, and doubling it back on itself, put on the two identical reversed windings and bind down with a single layer of thin waxed tape. (Do not use cellulose or "Scotch" tape as this reacts unfavorably during humid weather and may produce fungus growths.)

Each secondary section should have twelve turns of approximately 26 s.w.g. enamel. The primary or line winding should be placed immediately over the first winding making sure that it is symmetrical. This consists of a total of 12 turns of wire of gauge such as No. 22 d.c.c. or equivalent to exactly cover the secondary. Before placing the line winding wrap on an electrostatic screen made from a non-shorting layer of tinfoil. An excellent material for this purpose is the foil coated waxed paper used for protection of Kodak roll films. With care, a little fluxite and a hot iron—such as a Scope—it is possible to solder light flex to this foil. See that the screen and centre tap of the primary winding are clear of the "hot" centre connection of the secondary (or inner) winding.

With the transformer alone a considerable improvement will be noticed in reception conditions. The insertion loss when operated on a properly terminated line is not more than one decibel which is more than compensated for by the reduction of noise level coming in on the vertical component, allowing use of higher receiver gain. VK2XO, who operates literally surrounded by high tension power transformers at the Raleigh sub-station on the North Coast reports phenomenal reduction of local noise. Ask Crieff to give a demonstration during your next QSO with him.

For most efficient use of the received signal energy the transmission line terminal impedance should be matched with the receiver input. Measurements show that the centre impedance of a 66 ft. dipole coupled to a receiver through 33 ft. feeders varies from approximately 30 ohms on 80 metres to 3,000 ohms at 40 and 20 metres. Assuming an average input impedance at the receiver of 300 ohms the mismatch will be seen to be 10 to 1; a state of affairs which, if detected in a transmitter, would be given immediate corrective attention.

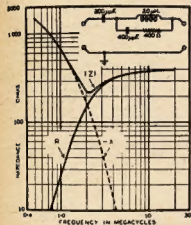


Figure 3 (Inset): Dummy antenna for all frequencies.

Figure 4: Impedance characteristic of dummy antenna shown in Fig. 3.

Figs. 3-4.

into cylinder or toroid groove and when cool and hard cover with a layer of light waxed tape for mechanical protection.

VK2JC produced an excellent toroid core by making a casting with a piece of cab-type flex as a pattern. Being a dentist during his spare time from radio, JJC used dental plate moulding powder to mix with the iron dust and produced a hard ring of such high magnetic property that the writer was able to lift one from the table with a small magnet used for setting the "high-low" index markers of a thermometer.

The secret of the high degree of electrostatic balance coupled with high magnetic coupling is in the polarity of the various windings. For clarity in drawing the toroid winding in Fig. 2 the windings are shown diametrically opposed. In practice the windings are immediately over one another. The turns indicated in Fig. 2 are for a special transformer coupling from a 300 ohm line to a 75 ohm receiver input.

To cover the normal 20 to 80 metre bands, the windings are not critical, the only requirement of consequence being that the impedance of the windings equal the load resistance at the lowest operating frequency. For calculation purposes—to assist those of mathematical inclination—it may be assumed that the powdered iron core increases the permeability for a factor of about THREE.

IMPEDANCE MATCHING ELEMENTS FOR RECEIVER INPUT 300 OHMS									
Mc/s	3 1/2	7	14						
R <sub>1</sub>	374	3000	3000						
R <sub>2</sub>	300	300	300						
MINIMUM RATIO	1:8	10:1	10:1						
Y	124	100	100						
N	24	55	55						
X <sub>1</sub>	24	55	55						
M.F.	1700	25	124						
X <sub>2</sub>	56	212	212						
M.F.	810	108	54						
X <sub>1</sub>	18	540	540						
X <sub>2</sub>	68	142	142						
X <sub>1</sub> + X <sub>2</sub>	86	682	682						
M.H.	3.9	15.4	7.7						
CIRCUIT FOR SPECIAL MATCH									

Fig. 6.

It is possible to adjust the length of the feeders for a spot frequency to give a workable match to the input circuit of the receiver. However this will be found an unworkable procedure for multi-band working. A "pi" network of reasonably high Q may be operated as a resonant circuit by making the reactance of the terminal capacitances proportional to the circuit impedances.

Another method based on the Reactance Transformer, evolved by Mr. E. Green, of the Marconi Company, and described in "Marconi Review" No. 67, provides an excellent means of solving the problem. Those who are interested in the mathematical solution of the Reactance Transformer are advised to consult this excellent article and its forerunner in the No. 54 Review. The "bread-and-butter" solution boils down to a few simple equations capable of easy solution.

The Reactance Transformer in its simplest form consists of a simple "L" network in which the capacitive arm always faces the circuit of high impedance. As the transmission line impedance may vary above and below that of the receiver input, the Reactance Transformer would require reversal or operation back to back with another section to form a "pi" network. Assuming the configuration in Drawing No. 5A where  $r$  = the low resistance,  $R$  = the high resistance,  $x$  = the series

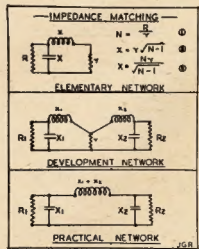


Fig. 5.

(Continued on Page 8)

# A Beam Rotator for 144 Mc.

BY JOHN IRELAND,\* VK3AJI

The writer recently had need for some means of rotating a four-element beam for 144 Mc., and several methods of achieving this were explored.

Finally it was decided to try the generator out of the BC966A I.F.F. Receiver unit, which, with the associated gear train, proved most satisfactory for the job.

The generator was first removed from the chassis, stripped of fan, cams, contacts, etc., and then converted to operate on 230 volts a.c. To do this, the motor was dismantled by removing the gear train, mounting bracket, the castings containing the brushes and then the lugs on the ends of the field wires were snipped off. Extensions were soldered to the field wires, the joints insulated, and the extra leads brought out of the hole where the original wiring entered the motor. The low-voltage brushes were discarded, and two fresh leads connected to the high-voltage brush terminals (marked "H.V." on the casting) and also brought well clear of the motor, through the same hole as the field wires. The motor was then re-assembled, and the gear train replaced.

At this stage it was decided to test the motor as an a.c. unit, so one field lead was connected to one armature lead, the joint taped, and the remaining two leads (one field, one armature) connected to a.c. supply. The motor

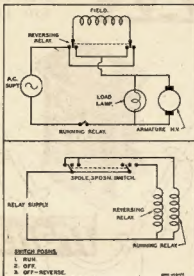


Fig. 2 (above), Fig. 3 (below)

As it was considered essential to have the unit reversible, methods of reversing the motor were investigated, and relay control seemed the best proposition, particularly in view of the fact that controls were to be a minimum in number. By utilising two relays taken from the BC966A it was found possible to have complete control over the unit with a 3-pole 3-position switch of the wafer type.

The temporary connections were then undone, and the motor mounted on a piece of 6" x 1/2" timber about a foot long, a batten-holder and the two control relays were fastened to the motor board, in positions as shown in Fig. 1.

To ensure weather-proofing, the whole was fitted in a kerosene tin from which one end had been removed, a 1" hole cut to allow the drive from the lowest gear to protrude, and the spout from a 1-quart oil tin soldered over the hole. A piece of 1/2" ebonite rod was line-bored with 1/8" drill, tapped 5/32" and a grub-screw fitted, this being fitted on the 1/2" shaft from the motor. A length of 1/2" drawn conduit was used to couple the motor to the beam, and this fitted closely over the ebonite bush. Next, a large screw-cap from a coffee jar was soldered to the conduit, just clear of the oil tin spout, making an excellent weather-proof seal, although no friction was incurred.

The whole assembly was mounted on the mast at a height of about 7 feet from the ground, the supply connected, and a couple of coats of paint finished the job.

So far no beam indicator has been installed, but a couple of Selsyns seem to be the logical answer. Another refinement would be some form of end-of-

travel switch, and something will be done in this connection in the near future.

On test, the time of rotation was found to be 14.5 seconds in a clockwise direction, and 17 seconds when revolving in an anti-clockwise direction.

Details of control are shown in Figs. 2 and 3, and have proved most satisfactory at this QTH.

The main part of this job seems to be the mounting of the beam at the top of the mast or tower, and it is essential that the unit should be properly balanced, preferably on ball-race. Any suitably sized old ball-race from the junk box would do, and there seems to be no reason why the same motor could not be used for a beam for 6 metre operation.

Due to the slow speed of rotation, no great accuracy seems to be necessary in the drive shaft of conduit, and the whole should be easily made up by anyone, however roughly, with satisfactory results.

## Audio Filter for CW

Filter chokes from 400 cycle power supplies can be used to make a simple yet effective audio filter for c.w.

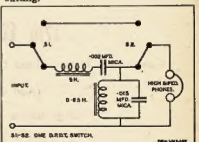
Chokes from an ASB7 rectifier power unit (ex Disposals) were used. The switch shown in the sketch is used to cut out the filter when it is not required. (The writer does occasionally listen to phone signals.)

Resonant frequency was measured as 1400 cycles, with an insertion loss of 6 db (10,000 ohm load).

Bandwidth at:

- 6 db is 400 cycles, 1200-1600.
- 12 db is 1100 cycles, 900-2000.
- 40 db is 5640 cycles, 360-6000.

Used with a selective receiver, the bandwidth in the -40 db region is actually narrower because of side-band cutting.



The insertion loss is less than that of the FL5 Radio Range Filter, and although not so sharp, yet it has proved useful in cutting down QRN and background noise, and is some help in reading through QRN.

For details on design of such filters, see "QST", July, 1949, page 51.

-VK3AWS, W. Stevenson.

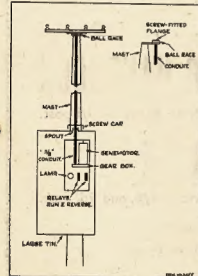


Fig. 1.

ran smoothly, but rather fast, and experiment with a 40-watt lamp connected across the brushes reduced the motor speed somewhat, but at the same time gave the final drive considerably more torque.

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# REDUCING SPLATTER

BY R. Y. DAWLEY, W6DHG (Reprint from "Radio")

There are frequent cases where it has been found impossible to remove completely the splatter accompanying the modulation of a phone transmitter by any of the ordinary means. Another transmitter with the same tube line-up, but with a slightly different physical layout, will be capable of substantially complete modulation without any trace of splatter while the offending transmitter will begin to have spurious sidebands long before 100% modulation has been reached.

When the operator of such a transmitter was conscientious he would probably attempt to isolate the trouble for a couple of sleepless nights, then finally give up and try re-building various stages of the transmitter until finally he found that the trouble had disappeared. Were he not quite so conscientious, he probably would just forget about it (as many have done) and let the other fellow on the band do the worrying.

## AMPLITUDE AND PHASE MODULATION

In many cases of this kind, after every other avenue of attack has failed, it is quite possible that the difficulty may be found to lie in a seldom thought of type of modulation, phase modulation of the output of the transmitter. Phase modulation of limited amplitude in itself will cause no spurious sidebands; neither will conventional amplitude modulation. However, since the phase modulation that is taking place is the result of amplitude modulation, both modulation types are appearing at the same time with the result that new second and higher order sidebands are produced. It is these new higher order sidebands that cause adjacent channel splatter.

Phase modulation can be explained as a variation in the instantaneous phase of the carrier wave with respect to the phase that the carrier would have at this instant were it not modulated, this variation taking place at an audio rate. Audio modulation of one polarity will cause a slight acceleration in the angular velocity of a vector which can be thought of as representing the carrier frequency; modulation of the opposite polarity will cause a deceleration in velocity of the vector and under carrier conditions the angular velocity of the carrier vector would be constant.

If the maximum phase shift or instantaneous vector displacement is one radian (57.3 degrees) or less, the sideband components produced in the output of a phase (only) modulated transmitter will be substantially the same as those produced in the output of a conventional amplitude modulated transmitter; the output wave will consist of first order sideband components in addition to the carrier. In other words, only the ordinary sum and difference frequencies will appear. However, if the maximum angle of displacement due to modulation is more than one

It is hoped that this article, calling to the attention of the Amateurs a condition that could cause that difficult-to-locate source of sideband splatter, will be instrumental in reducing the sideband width of transmitters which are conscientiously "modulated less than 100 per cent" and yet are guilty of spurious sidebands.

radian, second and higher order components, similar to those produced by overmodulation of an amplitude modulated transmitter, will appear in the output.

So we see that if phase modulation in excess of one radian is taking place at any modulation percentage as far as amplitude modulation is concerned, the resulting effect will be the same as though the transmitter were being amplitude modulated in excess of 100%. Actually the transmitter is being modulated in excess of its modulation capability as soon as higher than first order effects, due either to amplitude or to phase modulation, appear as sidebands in the output. As a matter of fact, as long as any phase modulation is taking place along with the desired amplitude modulation, second order effects or double-modulation-frequency sidebands will appear in the output. Then if the transmitter is being phase modulated in excess of one radian the spurious sideband condition can be really serious due to sidebands of three, four, or five times the modulation frequency.

By another analysis of phase modulation, it can be shown that the result is identical to frequency modulation, but with a very limited change in the frequency of the transmitter due to modulation. Since the carrier vector is being accelerated and decelerated with modulation, it can be seen that at any point on the modulation cycle the instantaneous output frequency of the transmitter is different from what it is under carrier conditions.

## CAUSES OF UNDESIRABLE PHASE MODULATION

There are three conditions that may exist in a phone transmitter which can cause phase modulation. The first is regeneration in the final stage caused by its being operated out of neutralization. The magnitude of phase modulation will be proportional to the amount the stage is out of neutralization and to the transconductance of the tubes. If the final amplifier is exactly neutralized no phase modulation can arise from this source. However, the amplifier may appear to be neutralized when it is tuned up without plate voltage and yet when plate voltage is applied it may show signs of regeneration or degeneration. This condition is much more likely

to appear in a single-ended stage when operating at a high carrier frequency than in a push-pull stage.

## OPERATION INTO REACTIVE LOAD

Another condition which can easily cause phase modulation is the operation of the modulated stage into a reactive load. This can occur when the final tank circuit is simply detuned from resonance for one reason or another. In such a case the tubes would not be operating at minimum plate current and restoring the tank to resonance would correct the difficulty. Phase modulation arising from this condition is the result of variations in the plate resistance of the tubes with modulation acting in series with the reactance of the output circuit.

The final stage may also be operating into a reactive load when the final tank is tightly coupled to an antenna system which is not exactly at resonance. When coupling an antenna system to a transmitter makes it necessary to retune the plate tank for minimum plate current, it is more than likely that the tubes are operating into some reactance. If the tank is comparatively high Q, it is possible that the reactance will be small and will cause no ill effects. However, if the tank circuit is of the minimum Q permissible for the operation of the stage into a resistive load it is quite possible that when the tank is retuned to minimum plate current it is really being retuned to maximum tank impedance and not necessarily to tank resonance. Under these conditions the tubes would be operating into a reactance (more than likely an inductive reactance) when the tank has been retuned to minimum plate current. Such a condition will cause phase modulation along with the desired amplitude modulation.

An arrangement which can very easily cause phase modulation is the operation of a modulated amplifier into a pi network, especially one of the so-called simplified type where the tank circuit has been eliminated and the tube operates directly into the first condenser of the network. If the network has not been accurately designed, or if the stage is not being operated very closely in accordance with the design, it is quite easy to have a condition which will cause phase modulation.

## TESTING FOR REACTIVE LOAD ON THE FINAL

Since the operation of the modulated stage into a reactive load can so easily cause phase modulation with its attendant undesirable effects, a test which would tell whether or not the stage was operating into such a load would be of assistance.

When an amplifier has been properly neutralized and has no regeneration or degeneration in the stage, the point of minimum plate current will exactly coincide with the setting of the final amplifier tank

condenser which gives maximum grid current. This should be true with the amplifier both loaded and unloaded.

It is of course true that the grid current to the stage will be less with plate voltage on the tubes than before the voltage was applied. It is also common knowledge that as the plate tank condenser is detuned either side of resonance the plate current will increase and the grid current will decrease still further. The important thing is that the grid current be highest exactly at the same point that the plate current is lowest. In any amplifier that is operating correctly this will be the case. But when an amplifier is being loaded too heavily for a low-Q plate tank or when a reactance is being coupled into its plate circuit from an external source, maximum grid current will not flow at the point of minimum plate current.

When a stage in which the two points do not coincide is modulated, phase modulation to a greater or lesser extent will take place, the amount of such modulation being dependent upon the magnitude of the reactance into which the tubes are operating.

If the minimum plate current and maximum grid current points come at the same setting of the plate tank condenser when the amplifier is unloaded, but do not when the stage is loaded, it means that the stage is being loaded too heavily for the Q of the tank circuit or that the antenna system is coupling a reactance into the tank. The remedy is either to use a higher Q plate tank or to retune the antenna and feeder system to resonance, or both.

#### BACK COUPLING AS A CAUSE OF PHASE MODULATION

Another condition which can cause phase modulation as the transmitter is amplitude modulated is coupling from the modulated output of the transmitter back to one of the exciter stages. This can occur when there is inductive coupling from the output tank circuit or the antenna feeders to the tank coil of one of the exciter stages which is operating on the output frequency. This back coupling can cause a phase shift in the grid excitation to the modulated stage. The phase shift would be proportional to the amount of energy which is being fed back, and since the amount of energy in the output circuit would be proportional to the modulation, the phase of the energy appearing at the grids of the modulated stage would vary with modulation. Phase modulation arising from this condition can cause the same undue sideband width or splatter as phase modulation arising from any of the other sources.

The cure for this condition would simply be to shield the exciter stages from the modulated output circuits of the transmitter. In this way the back coupling will be stopped and any phase modulation arising from it will be eliminated.

## IMPEDANCE MATCHING FOR AERIAL COUPLING

(Continued from Page 4)

inductive reactance, and  $X =$  the parallel capacitive reactance, the relationship is as follows:—

$$x = r \sqrt{n-1}$$

$$X = \frac{\sqrt{n-1}}{n r}$$

where  $n =$  the ratio of  $R$  and  $r$ .

To generate a "pi" network it is necessary to assume that both ends of the circuit operate into a phantom common resistance shown by dotted lines in Drawing 5B.

If  $R_1$  and  $R_2$  are taken as the two end resistances and  $r$  the internal phantom resistance, the two values of  $x$  (inductive series reactance) should be added to form a single unit. The resultant network is illustrated in Drawing 5C.

Drawing No. 6 tabulates the circuit constants for matching a 300 ohm receiver input to a line varying between 37.5 and 3,000 ohms for 3.5, 7 and 14 Mc.

The capacitors on both sides of the coupling network should be twin ganged to give a centre earth connection, and should have individual section values to give the values shown.

The inductors should be arranged in two half value sections switched by a two gang three section Oak switch to preserve symmetry. If the transmission line is not an exact quarter wave multiple the residual reactances may cause trouble in compensating for their effect on the circuit. It is best therefore to have the transmission lines tailored to the closest multiple to avoid this complication.

Components of the Reactance Transformer and Matching Network should

be housed in a screened compartment, otherwise spurious pick-up may nullify all the good work put into the construction of the unit.

This type of coupling transformer, used in conjunction with a rotating loop aerial permits accurate direction finding reception. The writer is at present experimenting with an astatic balanced pair of loops which provide a high degree of discrimination against vertical component signals. This is confidently expected to permit accurate plotting of "pirate" stations. Details are promised for a future issue of "Amateur Radio."

— . . . —

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The meter itself is very sensitive (200 micro-amp. full scale deflection) which permits the instrument to be used as a field strength meter. It will assist materially in such experiments as lining up a beam aerial, determining radiation patterns, effect of variation of coupling and matching systems, etc. The calibration holds good over the whole range of Amateur Bands, up to 28 Mc/s. In neat diecast housing, finished ripple black. Complete with five coils.

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## TUNING IN S.S.S.C.

A few of us have been using s.s.s.c. and have been very disappointed at the lack of response and help from others on the band. You can call for hours and get no reply, except from the few stalwarts who come to your aid every time.

It is only to be thought that the chaps do not know how to tune it in properly. No other explanation could be counter-acted.

When receiving s.s.s.c. the receiver must supply the carrier. This can be done by two methods.

- (1) The receiver b.f.o.
- (2) An outside oscillator.

The outside oscillator is the better method. With an outside oscillator, which can be your frequency meter, your v.f.o. or another r.f. oscillator, you supply the carrier at the exact frequency of the untransmitted carrier. The nearer you get to this frequency, the better the quality of the received signal. Any variations in frequency have to be compensated for at the receiving end. After you have supplied the carrier at the right frequency you can tune the receiver to give you the best results. After you have used the receiver b.f.o. method, it is a strange feeling to be able to tune the receiver quite freely.

In using the b.f.o. you have to set the frequency in the band pass of your receiver's i.f. channel. Then turn on your b.f.o. and supply the carrier at the right frequency.

In both methods of reception, you must adjust the strength of your supplied carrier to correspond to the strength of the received side band. If you supply too much carrier, you get the effect of overmodulation and if your carrier is too weak, you get the effect of overmodulation with bad distortion. The latter trouble is very common in cases using the b.f.o. The strength of the carrier from most b.f.o.'s is quite small.

The solution is to decrease the strength of the received side band. You do this by turning down the r.f. gain control or taking off your aerial. That is the hardest thing to get the chaps to do. You must take your foot off the accelerator. I'll admit it is a terrific wrench to have to turn the r.f. gain back, but it is the only solution.

There is no means of reporting a.s.s.c. strength on the present RST system. All we are interested in is readability. If that is 100 per cent. that is all we really want.

When using an outside oscillator you have to vary the coupling to get, again, the proper ratio of injected carrier to received side band. We thought that if you injected an R9 plus signal at all times and thereby flattened all QRM and noise and put up with the effect of undermodulation, it would be the best thing, but things did not work out at all well that way.

It is all quite easy when you get the hang of it so go to it, give us a hand and the best of luck—but remember that accelerator.

—Dr. Leo H. McMahon, VK2AC.

## APPARENT DUPLICATION OF VALVE TYPE NUMBERS

### TYPE 6AR7GT

Questions have been asked by those who have noticed type 6AR7GT listed as a double diode in the A.R.R.L. Handbook and in other overseas publications. The answer is that this type number was reserved by R.M.A. for the General Electric Company (U.S.A.) in 1945, but registration was not carried out and the request for reservation was subsequently cancelled. This type number, 6AR7GT, was subsequently registered by the Radio Manufacturers Association (U.S.A.) on application by Amalgamated Wireless Valve Company, for a duo-diode-pentode manufactured in Australia. The use of this type number for any other valve is erroneous. —A.W.V. "Radioelectronics" No. 143.

## NEW INVENTION IN RADIO

Mr. P. M. S. Damen, of The Hague, has applied for a patent on a special device to be used in conjunction with radio sets. It is claimed that this device will make it possible to tune in to any broadcast listed in a radio programme, at any given day, time or wave length.

By means of this gadget, which is operated by a clock containing a paper strip listing the different times of eight stations, listeners are enabled to arrange their radio programmes a day—or even a week—in advance by the use of one or two simple manipulations.

The tuning in or the switching off of one station—or the change-over from one station to another—is effected by the use of a number of contact points which are either dropped through the perforations or allowed to by-pass them as required.

The advantage of this new invention is that one need not miss any news, concert, radio play or some other important broadcast which now one often remembers too late. Mr. Damen claims that the purchase price of his gadget, according to experts, will constitute only a small percentage of the cost of a radio.

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## IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

AUGUST, 1950

Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3a	N.-West America	San Francisco
3b	N.-East America	New York
4	Central America	Barbados
5	South Africa	Johannesburg
6	Far East	Manila

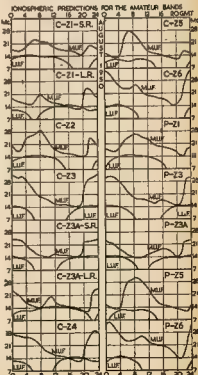
The Perth charts are similar to those based on Canberra.

### QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra-San Francisco circuit would be useful:—

1. Were good conditions experienced on 7 Mc. for the period 0800 to 1500 hours G.M.T.
2. Was the 14 Mc. band workable between 0300 and 1800 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the months.



# FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

Activity during the past month seems to have been concentrated on 144 Mc. VK3CT at Yallourn is running a continuous automatic c.w. transmission on this band and has been heard at good strength by Melbourne stations.

An epidemic of Frequency Modulation is raging amongst the 50 Mc. gang in Melbourne, and many are the arguments regarding the relative merits and demerits of Phase Modulation and Frequency Modulation. At the time of writing, the odds are in favour of Phase Modulation. A good sign is the adoption of n.b.f.m. adaptors for the receivers, and most of the aforementioned devices of f.m. have fitted them with good results.

## 50 MC. ACTIVITY

### VICTORIA

One of the best DX openings for this time of the year as far experienced occurred on the 20th June when from 1500 to 1630 3BQ and 31X worked 4XN and 4BT with signals peaking over 50. Between 1800 and 1820 3VW and 3RU were heard, but not contacted, and then from 1900 to 2000 hours 4BT, 4CQ, 4E4, and 2SL were worked by 3OD and 31V. VK4s were heard working VK3s and VK2s, so it is evident that the opening was very widespread.

The Victorian country stations are still on the job and 31L, 3APP, and 2ZL continue to provide contacts with Melbourne stations. Signal strengths are down compared with summer levels, but the contacts are still being made, which is the main thing. 3VL, formerly of Red Hill, is now at Omeu and hopes to be on 30 Mc. before long. 3VX is in a rather isolated location, but will be doing his best to contact Melbourne stations.

### SOUTH AUSTRALIA (UPPER MURRAY AREA)

This past month or so has seen a great increase in 50 Mc. activity from the Upper Murray area. In the vicinity of 130 miles or so from Adelaide and from most other centres of habitation we have good prospects of DX. 5BC has added a p.a. stage, consisting of 8B4s in push pull, to his 30T output in 10 Mc. transmitter and is now achieving 100 watts c.w. Extensive tests were carried out from 11th to 25th June with 3BD, 3QH, 3JT and 3MK—all to Adelaide. Tests at night were carried out during the week, and day tests on Sundays, and it was found that very little difference occurred between day and night. Although QRM was very prevalent, it seemed worse at night. When heavy cloud existed between 5BC and Adelaide, QRM was less, however best average report both ways was 55 dB with occasional push to 57.

At present 5BC's antenna is a four element with spaced beam. 5BD is the same, and shortly both are adding an additional four elements on top of each in an effort to improve things. C. has been using mostly, but phone has been heard from Adelaide. 5MA in Berri here also is starting on six. His receiver is a converted 1133 receiver and

transmitter is a revamped 1138H transmitter circuit with the RK31 stage removed. His antenna is a dipole for the time, but beams will follow. 5XL at Clare, S.A., some approximate 100 miles direct, is also interested in these tests and has a crystal controlled converter feeding into an AR6 receiver. He has had several good crossband tests with the Adelaide party. 5XL has a transmitter under construction.

## 144 MC. DOINGS OF THE MONTH

### VICTORIA

With the coming of old nights and cessation of field day activity for the winter, activity is still at a somewhat low level, but there are still a few stations on the band every night. New calls heard during the month are 2AQ and 5WE.

As mentioned last month, 2ED, of Warragul, is now active on this band and has worked a number of Melbourne stations including 3AB, 2ED, 2IM and possibly others. He has also worked 2TO at Yallourn and 3ARE at Geelong. This latter contact is over a distance of 55 miles and has been made with good signals both ways.

3TO continues to work from his portable location on Sunday afternoons and still works a number of Melbourne stations. 3ZL of Ballarat has a new beam up, exact type not known at time of writing, however it is giving a considerable improvement in signals over the old one and Eric has been able to hear 3TO for the first time, under fairly adverse conditions, so a contact over this path should be possible in the near future.

3W1 will soon be transmitting on both 30 and 144 Mc. Two 2V114As having been modified for this purpose, a special semi-directional aerial has been designed for the two metre transmitter by Len Jackson, and as the transmitter will be operating from a high location, it is hoped that a good coverage will be obtained on both bands.

### TASMANIA

7BQ has just completed a recode converter for 114 Mc. and is giving it a good test, preparing for the next DX season. 7BQ also has gear for 300 and 710 Mc. output, but he QRM here takes place due to the inactivity of the local v.h.f. members. 7AV has built a crystal rig for 144 Mc. but as yet the crystal oscillator seems to be the only thing working.

From Hobart 7MY reports that he is using a m.o.p. RK34 circuit driving a pair of 6V6s in push pull, all tuned circuits being parallel lines. This rig is re-modified by a single 80T and fed into an open wire feeder to a vertical 3 50 ft. high standing wave indicator shows no standing wave. A four element "roof" is to go up soon on a piece of water pipe with suitable rotator gear. 7MY is to add a pair of VT66s to the 80T and by the time time is to print, an automatic meter will be in operation and at regular times a m.w. signal will be put out with hope of pushing a signal further ahead than the front fence.

# ABSTRACTS, OVERSEAS MAGAZINES

Since these abstracts have been running, we have had many enquiries as to where these magazines can be seen or borrowed. For subscriptions McGill's in Victoria, the two other main sources are the W.E.A. (Victorian Division) and the Melbourne Public Library. The W.E.A. (Victorian Division) gets the following: "QST," "Wireless World," "R.S.G.B. Bulletin," and these are available on loan to Victorian Division members from the Librarian.

The Melbourne Public Library gets: "Amateur Radio," "Australasian Radio World," "Radio and Hobbies," "Radio and Television News," "Wireless World," "Electronic Engineering," "Electronics," "Radioelectronics," "Television" and in the near future will be getting "QST" and "RSGB." In general, private individuals cannot borrow these, but they may be read at the library any day or evening. Similar information from other States will be published whenever available.—A.X.

## BOOK REVIEW

OP-ADZ—Published by Amalgamated Short Wave Press, London, 1/6 sterling. This booklet is a concise operating aid. It contains tables of prefixes, call letters, and a list of countries with their boundaries; local times; QRL; bureau; Q and Z codes; maps of U.S.A. and U.K.A.E. call areas. It is a very handy reference work, and will be handy when combined in a small booklet like this.

## "RADIO AND TELEVISION NEWS," JAN., 1950

P. 31: "Frequency Measurements for Citizens Band." M. McKee. Simple frequency measurement techniques.

P. 42: "A Two Meter Quad?" G. B. Oberio. Claims to save line angle of radiation and higher gain than the five-element beam antenna.

P. 43: "Covering the Abbott 104 for 420 Mc." H. H. Rogers. W.41F.

P. 43: "A Variable Low Power Transmitter?" G. L. Constans. W.41F. and 420 Mc.

## "RADIO AND TELEVISION NEWS," MARCH, 1950

P. 21: "Broadband Converters?" A. E. Kaufman. W.41F.—Single and two tube crystal controlled converters for 80, 40, 30 and 10 metres.

P. 43: "The Mini Rack Transmitter?" J. F. Clemens. W.41F.—Small all-band 100 watt transmitter using push pull 807A. Built into test rig.

## "RADIO AND TELEVISION NEWS," APRIL, 1950

P. 43: "The Mini Rack Modulator?" J. F. Clemens. W.41F.—Companion unit to transmitter described in March issue. 53J, 53J7, 6L6, class B. 41F. modulator describes five band antenna.

P. 61: "No Space for an Antenna?" S. Johnson. W.41F.—For "inside the roof" 10 metre antenna. Recommends a vertical quarter wave on ground plane, or the W4JX.

P. 61: "R.F. Power Output Meter for V.h.f. and U.h.f.?" R. G. Brown. W.41F.—Simple instrument using 1N34 rectifier and milliammeter and will work from 3 to 300 Mc. However it may be hard to obtain suitable high impedance non-inductive resistors, although it is possible to make your own like the author.

P. 61: "Transmitter Keying and Blasting Problems?" N. Whitaker. W.41F.—Good hints including one on how to shape the keying waveform to compensate for a poorly regulated d.c. supply.

## "QZ," MARCH, 1950

P. 11: "The Wide Beam Five?" E. M. Brown. WPAU.—Two meter beam valve for swinging from horizontal to vertical polarization. Two five-element Yagi spaced one wave length.

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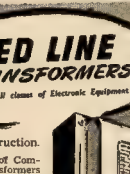
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## "SHORT WAVE NEWS," MARCH, 1950

P. 61: "Observing Sunspots?" P. B. Barrett. Simple projection telescope for those interested in observing sunspots, with conditions.

P. 61: "Inside Black and Workshop." Part II: Major Cycle.—Construction of WCCB1 (or 636) two plate heterodyne oscillator for 450 Mc. Circuit is usual plate modulated v.h.f. oscillator with 6J5 as a heating modulator.



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# FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: W. R. GRONOW (VK3WG); Federal Secretary: G. M. HULL (VK3ZB), Box 2611W, G.P.O., Melbourne.

## NEW SOUTH WALES

Secretary—Maurel Butler (VK3AAN), Box 1784 G.P.O., Sydney.  
Meeting Night—Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

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## FEDERAL

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#### PROVE

VK3JD (1)	..	..	..	37	148
VK3BE (2)	..	..	..	37	148
VK3BE (15)	..	..	..	37	148
VK3BE (4)	..	..	..	37	148
VK3BE (1)	..	..	..	37	148
VK3BE (6)	..	..	..	37	148
VK3BE (11)	..	..	..	37	148
VK3BE (9)	..	..	..	37	148
VK3BE (8)	..	..	..	37	148
VK3BE (13)	..	..	..	37	148
VK3BE (14)	..	..	..	37	148
VK3BE (15)	..	..	..	37	148

#### C.W.

VK3BE (6)	..	..	..	40	157
VK3BE (5)	..	..	..	40	157
VK3BE (1)	..	..	..	40	157
VK3BE (15)	..	..	..	40	157
VK3BE (9)	..	..	..	40	157
VK3BE (10)	..	..	..	40	157
VK3BE (4)	..	..	..	40	157
VK3BE (6)	..	..	..	40	157
VK3BE (8)	..	..	..	40	157
VK3BE (11)	..	..	..	40	157
VK3BE (15)	..	..	..	40	157

#### OPEN

VK3BE (4)	..	..	..	40	200
VK3BE (5)	..	..	..	40	200
VK3BE (1)	..	..	..	40	200
VK3BE (15)	..	..	..	40	200
VK3BE (9)	..	..	..	40	200
VK3BE (10)	..	..	..	40	200
VK3BE (4)	..	..	..	40	200
VK3BE (6)	..	..	..	40	200
VK3BE (8)	..	..	..	40	200
VK3BE (11)	..	..	..	40	200
VK3BE (15)	..	..	..	40	200

#### New Members.

VK3AWW (38)	..	..	..	100
VK3ATY (38)	..	..	..	102

## WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WV—Sundays, 1100 hours EST, 7195 Kc. and 1000 hours EST, 50.4 Mc. No frequency checks available from VK2WV Intra-State working frequency, 7175 Kc.

VK4WV—Sundays, 1100 hours E.S.T., simultaneously on 5540 and 7195 Kc. and V-broadcasts on 40 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK4WV is on the air.

VK4WV—Sundays, 0900 hours E.S.T., simultaneously on 5750 Kc., 7195 Kc., 144.18 Kc., 28.4 Mc. and 144.180 Mc. Frequency checks are given two nights weekly, and at times are announced on the Intra-State broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WV.

VK5WV—Sundays, 1000 hours E.S.T., on 7195 Kc. Frequency checks are given by VK5WV by arrangement only on the 7 and 14 Mc. bands.

VK6WV—Sundays, 0930 hours W.A.S.T., on 7195 Kc. No frequency checks available.

VK7WV—Second and Fourth Sundays at 1000 hours E.S.T. on 7195 Kc. No frequency checks are available.

## LOW POWER TRANSMISSIONS

The following transmissions from the official W.I.A. stations are given on 2,804 Kc. on the days and times shown below—

Sunday—VK3WV, 1000 to 1100 hours E.A.S.T.  
Monday—VK3WV, 1000 to 1100 hours E.A.S.T.  
Tuesday—VK3WV, 1000 to 1100 hours E.A.S.T.  
Wednesday—VK3WV, not operating at present.  
Thursday—VK3WV, 1000 to 1100 hours E.A.S.T.  
Friday—VK3WV, 1000 to 1100 hours E.A.S.T.

## ADDITIONS, ALTERATIONS, AND DELETIONS TO AMATEUR CALL SIGNS—JUNE, 1960

### Additions—

VK3SF—V. Fittion, 34 Fawcett Street, Mayfield.  
2AJ0—S. E. Brown, Lawley House, Canberra.  
2AQA—R. W. Amos, 88 Coral Road, Cronulla.  
2ATP—P. Pyke, 34 Goodbury St., Murrumbidgee.  
2AUB—R. W. Johnston, Macquarie Rd., Leichhardt.  
VK3PE—E. L. Willoughby, "Quebec," Noolbarr.  
3UC—D. A. Norman, 10 Brighton Ave., Preston.  
3ABR—K. Baper, 55 Kingsville Rd., W. Footscray.  
3AEB—D. G. G. Washford, 59 Radnor St., Camberwell.  
3AIC—F. R. Crosswhite, 10 Wimmers Ave., Geelong.  
3AOL—R. E. Lloyd, 16 Victoria Pde., Geelong.  
3AUB—R. R. Babo, 32 Waterdale Rd., Cranbourne.  
VK4JO—J. M. Cohoe, 44 Jellicoe St., Toowoomba.  
VK3DE—J. A. Chazy, 36 Moore St., Enfield.  
VK6WA—J. G. Wilkey, Government Aerodrome, Wymaham.  
GIM—C. W. R. Holman, 9 Elizabeth St., Katoomba.  
VK7KE—K. A. Johnston, 34 Tower Rd., New Town.

## W.I.A. ACTIVITIES CALENDAR

August 12-13: Remembrance Day Contest.  
Sept. 22-24: VK-ZL DX Contest (a.w.).  
Sept. 29-Oct. 1: VK-ZL DX Contest (phone).  
October 6-8: VK-ZL DX Contest (a.w.).  
October 13-15: VK-ZL DX Contest (phone).

## QUEENSLAND

Secretary—W. L. Stevens, VK4TB, Box 2282, G.P.O., Brisbane.  
Meeting Night—Third Friday in each month at 11 A.E. Rooms, Wickham St., Valley.  
Divisions: Sub-Editor—F. H. Shannon, VK4BN, Minden, via Rosewood.

## SOUTH AUSTRALIA

Secretary—G. B. Bowen, VK3XU, Box 1284X, G.P.O., Adelaide.  
Meeting Night—Second Tuesday of each month at 17 Wymouth St., Adelaide.  
Divisional Sub-Editor—W. W. Parsons, VK2PS, 483 Explanade, Henley Beach.

## WESTERN AUSTRALIA

Secretary—W. E. Cooney, VK2AG, 7 Howard St., Perth.  
Meeting Place—Fadbury House, Cnr. St. George's Ter. and King St., Perth.  
Meeting Night—Third Tuesday of each month.  
Divisional Sub-Editor—Alec A. Smith, VK2AS, 75 Weston St., Carlisle, Western Australia.

## TASMANIA

Secretary—R. D. O'May, VK3OM, Box 871B, G.P.O., Hobart.  
Meeting Night—First Wednesday of each month at the Photographic Society's Rooms, 168 Liverpool St., Hobart.  
Divisional Sub-Editor—S. Kennell (VK7SJ), 77 Mollie Street, Hobart, Tasmania.  
Northern Zone Correspondent—E. H. Kilby, VK7BK, 3 Galvin Street, Launceston.

## Alterations—

VK3AL—37 Connolly St., Penrith.  
1D8—7 Harold St., Guildford.  
3ALN—135 Morgan St., Berwick, Hills.  
3FD—16 Station St., North Strathfield.  
3HE—Pitt St., Springwood.  
3IV—52 Gleeson St., Rutherford.  
3J—6 Main Rd., North Sydney.  
3OX—63 Burwood Rd., Belfield.  
3RS—Lang St., Croydon.  
3UM—37 Clarence Rd., Stanmore.  
3VC—Edward Pde., Sylvania.  
3ABL—38 Ethel St., Hornsby.  
3ADL—15 Oxford St., Lidcombe.  
3ADY—117 Victoria Rd., Gladesville.  
3ADF—88 Dudley St., Croydon.  
3AFP—Cnr. Messenger and Marvel Sts., Byron Bay.  
3AGB—J. N. Macleachlan, 73 Weston St., Harris Park.  
3AKW—131 Rowe St., Eastwood.  
3ALN—Fire Station, Crows Nest, Sydney.  
3ALN—Rev. E. E. Winton, The Rectory, Wyahlong.  
3AME—Macquarie Parade, Hornsby Heights, Hornsby.  
3ANW—2 Onias St., Warranwood.  
3AR—21 Hewlett St., Granville.  
3ARJ—F. N. Slemmons, 25 Teedwood Ave., Rosberry.  
3ARY—38 Hyde St., Bellingen.  
3AYL—37 Miller St., Gungahlin.  
3AXA—R. Carruthers, should read VK3AX in call sign book.  
VK3SD—2 Frognore Rd., Murrumbidgee.  
3AL—Wood St., New England.  
3ON—27 Mortimore St., Murrumbidgee.  
3QR—415 St. Eilda St., Elwood.  
3AR—3 "Sunland House", 250 Toorak Rd., St. Kilda.  
3RD—2 Langford St., Williamstown.  
3ARL—116 Armstrong St., North Ballarat.  
3ADL—Pondora Hall, Moorabbin.  
3AGL—1817 Dana St., Ballarat.  
3AGL—63 Victoria St., Warragul.  
3AGN—J. Roushore Rd., Warragul.  
3AWC—c/o. P.O. Korong, Vic.  
3AXB—88 Eakdale Rd., Caulfield.  
3AWC—"Amalgam", Sydney St., Bundaberg.  
3AGL—Sheaffe St., Crows Nest.  
3GL—Lockyer St., Camp Hill, Brisbane.  
40W—Mount Bassett, North Mackay.  
VK3CP—14 Finchley Ave., Salisbury.  
3AR—2 Victoria St., Victoria Beach.  
3FD—460 Crows Ter., Gladesville.  
3RJ—23 Railway Ter., Katoomba.  
3VC—12 Dunn St., Somersport.

VK1AU—125 Cambridge St., West Leederville.  
 415—Whaling Com., Camp. Backage Island.  
 672—23 May St., South Bunbury.  
 VK1CA—Greens Beach, West Tamar.  
 752—Opussum Bay.  
 752—Hilton. Powell Rd., Blackman's Bay.

**Deletions—**  
 VK2QY—Cancelled.  
 3AKH—Cancelled.  
 VK3ID—Cancelled.  
 3AC—Cancelled, now operating under VK3AQ.  
 3AGJ—Cancelled.  
 3AGW—Cancelled, now operating under VK5WJ.  
 VK3AU—Cancelled.  
 18M—Cancelled.  
 18WA—Cancelled.  
 VK5GO—Cancelled, now operating under VK3FA.  
 5WA—Cancelled.  
 VK4O—Cancelled.  
 58L—Cancelled.  
 VK4XA—Cancelled.  
 VK4RA—Cancelled.

intention of doing so? It's not the absence of the cord that we depend on but on the absence of the saying that they will send you." PT3CK added the following postscript: "I have the electronic bomb referred to above and if you don't send your QSL after two days I burn my bomb in your ears—take care Danger!"

Felix, PT3AC, has been on the sick list for several weeks, after a surgical. Latest reports indicate that he is on the mend, but will not be on the air for the first few weeks in July.

As we know now, such was the case during the month of June, and Supt. Clifford forecast this happening at the meeting and thanked the Institute for its work in this field. Myrvyn Harrison, also a victim, was unable to attend because of transport difficulties in his district, where flooding had occurred. In his reply, Mr. Peddell thanked Supt. Clifford and the N.S.W. Police Dept. for their co-operation and said that the honor shown him and Mr. Harrison applied equally as well to other members of the fraternity who helped make the flood netting a success.

Joe Reed, VK2JH, then proceeded to dispense words of wisdom on "Model Radiator Investigations of Low Angle Radiation" and illustrated by numerous home-grown slides. With him he had a beautifully constructed folded dipole with reflector used as a detector unit in these investigations and a early resonator controlled transmitter on 140 Mc using an 6B8. Joe debunked many a pet antenna including the "rotary birdproof" and no doubt will be very busy sending out data slides (photostatic copies) used in the course of his lecture.

Appreciation was expressed over the obituary of an old book which had gone through the preparation of a subject of such genuine interest.

Dr. Alliman, ex VK4RA, advised that three colour films on Antarctica will be available for sale at an early date. The meeting closed at 10.50 p.m.

# NEW SOUTH WALES

The monthly general meeting of the Division was held at the residence of Messrs. Clifford and Supt. at 7.45 p.m. on Friday, 23rd June, 1950. Visitors present included Superintendent Clifford, of the N.S.W. Police Department, and Charles Peddell, VK3EK, Superintendent, Clifford, on behalf of the Commissioner of Police (Mr. Scott) expressed great pleasure in being able to award certificates in recognition of assistance given the Police Department during the disastrous floods at Erskiney in 1949. Supt. Clifford commending Mr. Peddell's outstanding work, said that he hoped that the co-operation shown during the 1949 floods would be repeated in any future emergency.

# FEDERAL QSL BUREAU

**RAY JONES, VK3MU, MANAGER**  
 Here's a new one for the certificate hunters. Any station that has proof of contact with the 58 Californian Counties, may submit their verifications to the Oakland Radio Club Inc., or to W6GT. Pre- and post-war contacts count. Who is going to be the first VK to claim the W.A.C.C.F. The list of counties is as follows Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra-Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba, and Sonoma. The above information comes from W6BZA.

Cliff (Robert Clifford) formerly operator at KX4BA is now back stationary and active on 14 Mc, under WA1AV and is looking forward to renewing old acquaintances. He expects to move on to Alaska in September or October. Cliff has about KX4BA cards already made out for VK contacts, but is holding them until he gets a new call back so that he may send them direct. Cliff, in discussing prize levels mentioned out in U.S.A. just now, is now down to 125 points a gallon, new cars are down 200 dollars to 800 dollars on the price two years back. Food and clothing are also on the downgrade to a lesser extent. Radio results are at almost prohibitive level, from 55 dollars to 67 dollars for a four roomed unfurnished place. However with 10 to 15 million new homes constructed in the States since the war, rentals are expected to drop before long.

Louis White, W9WLY, often mentioned in these notes, advises he is now basing on Sydney most mornings around 1100 G.M.T. on 30 Mc.

Bob Adams, ex VK8, now G6GFC, is anxious for VK contacts on 14 Mc. No information as to phone or c.w.

Eric Lake, VK4EL, who did a term as Inward QSL Manager in Queensland, has now been moved to Clerkenwell, some 13 miles south of Townsville. Eric, who met there several Divisional QSL Managers please note the change and the new QTH for the VK4 Bureau: Jack Piles, VK4JF, Yanda Street, Buranda, South Brisbane.

GECHU, who sends a second lot of cards via his friend Theodore, of Holding Centre, Sydney, N.S.W., would like a card from VK3AK, VK3ON, VK7JB and VK9GW. He requests they should either be sent via the N.S.G.B. or via his friend Theodore, who is a new migrant. It is understood that the OE stations are working with the knowledge and tacit but silent approval of the Australian authorities, but with the approval of only some of the occupation authorities.

This bureau would be grateful for information as to the disposal of cards for VK1AU, VK1BE, VK1JW, and VK1Y.

PT3CK in a fit and desperate attempt to wring QSL out of VK1Y, includes a cutting reading "Talking of QSLs, can anyone have a radio device to burn the ears off all those stations who say 'there will QSL' when they haven't the

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Belling Lee type L1221 70 ohm twin co-axial cable .....	per yard, 2/8
Belling Lee transmitting and receiving aerial kit .....	complete, 6/5
Belling Lee type L333 "T" piece Ceramic insulators. The only type for terminating line at a dipole .....	6/8
Belling Lee type L530/L531 7-pin plug and socket assembly .....	10/-
Belling Lee type L550/L551 5-pin plug and socket assembly .....	7/5
Other types of Multi-Connectors available shortly.	
Belling Lee type L1033/C4 twin cartridge fuse holders. Takes standard car type cartridge fuses .....	10/-
Belling Lee type L1045/C3 single cartridge fuse holders. Takes standard car type cartridge fuses .....	7/4
Belling Lee type L358 panel mounting cartridge fuse holders .....	5/1
Belling Lee type L375 miniature of above .....	6/8
Belling Lee Co-Axial Cable Connectors:—	
Type L604/S chassis mounting female .....	3/3
Type L645/P to fit L604/S .....	2/7
Type L1266 chassis mounting male .....	6/8
Type L1250 female to fit type L1266 and L1249 .....	6/8
Type L1287 chassis mounting female .....	6/8
Type L1249 male connector to fit L1267 and L1250 .....	8/-
Belling Lee type L514 silver plated plug pins. These fit the standard banana sockets and are ideal for constructing your own plug-in tank coils. Rated to carry 15 amps .....	1/4

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Bulgin type J21 closed circuit metering phone jack .....	2/4

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English Ceramic 832 sockets .....	14/6
Ferranti 0-500 microamp. meters with luminised dial .....	22/2/6
Metro-Vickers English 0-40 volt 2" square meters. Resistance 6,000 ohms .....	19/6
Metro-Vickers "Electric" 0-1 Ma. 2" round meters .....	21/9/6
Metro-Vickers 0-20 volt DC 200 ohm/volt 2" square meters .....	19/6
Amphenol Statette 5-pin valve sockets .....	3/6
American Tung-Sol 6AK5 tubes .....	18/6
American RCA 8012 v.h.f. triodes. Full rating 80 watts to 500 Mc. ....	60/-
American type 14 light weight mouse code keys .....	10/-

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There seems to be an awakening of interest in 144 Mc. lately and Joyce 2333 is a recent convert. Joyce has 38 countries on phone, works Wa and Vix consistently and hits them with a three element beam. 2DW was forced to move recently and now uses a 99 ft. antenna fed a quarter wave from the end with 75 ohm cable. Maine rots at Herne Bay just south of Cape Cod. A cat on bricks, says Joe. LANC works VE in a new building, a teen house. Garage (shack?) is first to go up and Frank Rile model aerobically in his spare time.

WQR is kicking 'em over in great style from Wood Pennant Hill, the long way around on 30. SART has given away 144 and QRS/QRS bar- barians are still coming in. The 144's got a good phone using area modulation. Habiabats 40 meters. ZKX does some good work in the early morning. 280. Currently catching Africans and Europeans. 300k has been working hard. The beam must be working extremely well as Harry runs only 50 watts to an 807 on 30. BXB is over on 160. 300k is running a 100 watt tube Bankston in June. Had to row home in boat. Uses a vec beam 3MM. After suffering years of pointed remarks about his meat-free microphone, he has decided to eat meat. He will also cover the works. RALO has just completed his 144 Mc rig and is using T928. SART is seriously considering using a QRS/800 tube in the final on 144 Mc.

The Experimental Radio Society of N.E.W. held a field day in co-operation with the Gladesville Radio Club on 29th July—144 Mc. was used. The selection of officers took place on Thursday, 29th July.

As these notes are being written the greatest episode in Australian Amateur Radio has just concluded. Our thanks must go to the North Coast Amateurs who put up such a magnificent showing during the disastrous floods in late June. All members of the Hunter Branch offer their congratulations. We cannot let the opportunity pass without special mention of the wonderful operating of both Pete SPA and Gerry ZSE—if ever there were two A1 ops, then these boys are them. As the whole story will appear in next issue, we will only deal with our local effort here.

Prior to the North Coast Net coming into operation, the Hunter Valley Net maintained regular checks right throughout the critical periods of the Maitland floods. Fortunately communications in this area held up and the only official work done was the passing of river heights by TVU at Singleton, 2ANU at Muswellbrook, 2TV Lochinvar, 2IQ Maitland and 2AKP East Maitland.

Communications from the area to the North Coast was done by 220 who had official permissions from the R.I. for such a link. During the first couple of days when things were in a bad way up the Coast, a continuous watch was kept at 220's shack. Jim passed much important traffic mainly Police and supply messages to and from the North. Jim did the first portion of the watch alone, but later on Saturday evening was assisted by SAHA till morning turns being taken on the

2000 during the night. The President's 2000. Sustained by  
 2000, came on the watch, although Jim was  
 operators at Police Wireless. Communication be-  
 between the truck base stations at Mattland and  
 2000 and 2000. The Army was particularly  
 pleased with the Amateur assistance when their  
 were also received by the above stations. Special  
 mention must also be given to Ron Stuart, 2000,  
 for a wonderful effort. Ron didn't miss a thing  
 and his help was most appreciated. The most  
 useful operators working under bitter conditions  
 couldn't have done a better job—any way Mrs.  
 from Mattland drove to Newcastle, serviced some  
 truck equipment in the Mattland area. The man  
 2000 and 2000, he copied signals  
 2000 for most. SOS and 2000 provided a high  
 quality link for the local broadcast: station from  
 Mattland as a result. The above emergency duties  
 constitute the major portion of the work around

The poor winter conditions have halted much of the usual activity. The last meeting of the Hunter Branch was well attended, even though the nights are cold. The President, ICA, introduced a new member, GORDON, who hopes to settle down in May, and got on the air very soon. ICA and GORDON met during the war in the Navy. Secretary ICA has not been very busy on the air during the month, only heard on 40 on a couple of occasions, but is still doing an I.R. job for the Branch.

2CW was able to get on 40 during the floods. 2AWA still building the QRO rig, believes in taking his time and making a job of it. 2UW retiring from the Treasurer's job so we hear—any nominations? 2Nan hopes to get that 1st class ticket ironed out.

soon. Would like to swap jobs with SMC these days—enough said. Bill is still not on the air, glad to see you join up. 2NX only operates on the week-ends, he is home from Sydney—has all the disposal shops picked out around the big smoke. ZAGY was on deck at Police Wireless a lot during the floods, and didn't hesitate to call on the Amateurs when required. Fred operates 10 and 20 when able.

TQX has on new receiver working very f.h. and does a bit on 80; doesn't like the hand to the 20's or 30's better than 10 in the winter time. SAGD not very good at all. SAGD has been doing very little lately. W6. ZTE been on 40 with a very powerful signal quite unusual to hear Best so low. SAGD heard on 40 the other day. SAGD has been working on 40 most of the week. ZXK has 2 metre gear going, but don't know what he has been working. SAGD having trouble with his QRZ and beam-lead. SAGD fairly quiet; 1B2 seems to be back home. Sydney stations are poor with the exception of SAGD. SRO will hope to get going soon. After the summer break, SAGD will be back home. SAAI still re-building, only on for local contacts. SAGD converter going OK now. SAGD not on 10 much lately. SAGD has been working on 10 and not use 40, a lot of the Northern boys would think it a juno for you, TQN doing a lot of hunting for 10. SAGD has been on 10, etc. might have been doing some hunting, but I can't say. SAGD has been on 80-got a class arm Keith or are you receiving for the best Contest? SAXY's only activity lately has been on 40. SAGD has been on 40 a few times. ZXK had the Hunter Net right on tap during the whole year because of the emergency. All the water for the beach was allowed this angle of radiation. So much that even his electricity.

2YU's 80 signal is in keeping with his signals on 6 and 40. Geoff is building a v.t.o. too. 2JZ seem to stick to 10. 2TY works all bands. No news of 2KF for a while, guess he is busy in his own home. 2YQ can be found on 10 phone, likewise 2KI most week-ends still knocking the Yanks over. Max also shows up on 80 for the emergency net working.

settling near the end of the work now. SADD has had a mixed month—We claimed him for a week, but Jack decides he should build himself a device on the frequency meter, the last part of the month he's been helping me with the frequency meter, and the frequencies. Six has had an spell for while. I'm not very active, doing a little at 14 Mc. or 5, kept an ear on the food net activities, also hopes to spend a little time on 7 Mc. from now on and I've appreciated a lot of anyone in the Lakeland area to the domain there. Give me a call on phone 1TR can be found on 5 Mc. but, but have not heard TAMU for some time, maybe the 'stars' hold Lame interest. 1TR, of course, is always to be found on 401. Any Lakeland stations who have an interest in the Lakeland area, please drop a line to 27 Compton Ave. Coonrock.

The main item this month seems to be floods. The Lachlan Valley copped it again early in June, not nearly as bad as the April record one, although it got to within 12 inches of it. At present you Zone Officer is again flood bound for the third time this year. The ducks were again in action with the local Amateurs helping with communication. On behalf of the Western Amateurs, I would like to congratulate the North Coast boys on their fine effort. Things like this go a long way towards helping Amateur Radio and the community.

2XP did the round trip through Forbes. No time for visiting Amateurs there, but made up for it at Yano where he called on 2DO and 2AL8, a 2APP at Young 2XO was a welcome visitor to Dubbo on his way through. Pity you missed Furber. Cried. TAMR of the air, believe he said his Rx to 2A08, has new Rx on the way. 2A08 is a new Ham at Dubbo and I believe he is active on 2U. I am now h.a.c.n. Heard on 7 Mc. also phone, 2G8 and 2V8 and 2W8. I will be busy with new house and rarely on the band these days. EVE still tuning up his tilting beam. Max thanks Bob for the Dubbo news.

SACU heard on the band using TAIED Tx and Mod. R2 Marconi, antenna long wire. Active on 20, 40 and 80 SWS must still be having trouble with wind. We thought only babies were trouble with things like that. Haven't heard him on 40 for a long time. Have noticed some DX stations working him on 20. Believe there is a new one in Trondie, 212. How about a bit of news from that quarter OSM. SACU has a most peculiar complaint, "Peanuts in his Epiglottis." I am lucky that that part isn't in my Tx to give trouble.

SAPP paid the Forbes gang a visit recently. All very pleased to see you. 1BT and FAMV are both very busy re-building after a visit to the studios at Dubbo. While over there, they made the mistake of calling in to see Tom and Max. SJ still too short of room at the pub to put up Ham Station. SQA must have his head in the

Three young riders gear up for a ride at Duboo. The riders are getting reflections from the moon yet. The 24C band during weather reports for the Northeast Coast came during the flood. No news from 3DRA. The 24C band during weather reports for the Northeast Coast came during the flood. No news from 3DRA. The 24C band during weather reports for the Northeast Coast came during the flood. No news from 3DRA.

We offer our apologies for the lack of news this month. The conditions on 40, which to the Zone Officer is the main source of gossip, have been bad. As the daylight beams are taken up with the job of keeping the wolf from the door and you can't hear anything at night, no hence the lack of news. ETC is active on 80 and is really laying down a very solid signal; the old rig working OK Jim, judging from the quality of the phone. 2APP also doing a fair bit on various bands mainly interested in antennas—a vein hasn't been struck yet. The signal of 20 is still good. New rotary beam on 6 is higher and more sensitive. Good signals are received from 80U and the 100 metres path between Canberra and Tumut is fairly reliable.

The full story of the solvity of N.S.W. Radio Amateurs in the disastrous floods that swept Northern N.S.W. in late June is not yet complete. It is being prepared by Peter Alexander, VK2PA, with the assistance of the many Amateurs that participated.

It will be a story of the services rendered the community in the greatest Amateur emergency working in history. Nearly 20 stations were operating from the North Coast flooded areas—the only means of communication in most cases from these districts. On the Hunter River the emergency net was also in full operation.

Floods have also interfered with the production of country game notes. North Coast Zone Officer VK2XO was flooded out and Crisp is still clearing up—we hope that the damage was not too great. In the West, Z.O. VK2WH is isolated by flood waters and John Marr VK3AMV contributed the Western Zone notes, this time helped by some phone information from Hugh VK2WH.

\_\_\_\_\_

Student man in Mankland during the crisis was  
ADX, the City Engineer; he was on the job prac-  
tically continuously, how they saved the river bank  
was breaking was a miracle. STY was also very  
active, mainly obtaining river belgita from Stinger  
one way - STY supplying the information. 222  
the expert on reading river belgita - some  
the game was over. The head of the  
break so we hear - STY will supply the details.  
of these years we will get some news of SAM  
and IPT - so c.u.l. A bunch of associates of the  
Hunter Branch are giving the code machine a good  
work out. The associate from Stockholm expectin  
call sign, congrats on passing, hope to remember  
your call sign; what a memory I have for names

Main interest in the next month has been the

work done by the various Amateur groups has been considerable. This work performed by Amateurs has been valuable to the Queensland border has been considerable and in many instances provided the only means of communication for many days. Late on 40 and 80 would have heard the various stations operating on the 100m band. The escapees from the Good damage, but several stations in this area were listening continuously and ready to come to the aid of any station in need of assistance if required. Others around Maitland and townships in the Hunter Valley did good work in supplying fuel and river barges, indicating the water damage was to be expected at Maitland where damage was done by the storm.

Stations active were 2ANU Muswellbrook, 2YV and 2JG Singleton, 2TY Lochmair, 2XQ, 2AK and 2DG Maitland District, 2ADT and 2VL Cessnock and 2KZ Kurriberrie with 2ZC 2AHA Cessnock. The last two stations also did good work in conjunction with the North Coast service. PA's effort, in my opinion, was a very good one. 2ANU had a consistent signal for his few wat-

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The month's general meeting of the WKS Division for June took the form of a film evening and lecture on the subject of "The Future of the Public Libraries Board in their theatre on North Terrace. Mr. Canning (of Phillips Industries) was the speaker, and the subject was "The Future of Tomorrow—P.M. and Television." It was realised by all present that the lecture was intended for a layman's audience, and would be of value to them to a great theoretical height, and were not disappointed. However, the film shows were entertaining enough and everybody appeared to be satisfied. The lecture was given by a professional televisionist did not realise the number of professional journalists who were among the audience, as he was not aware of the fact that the film was being shown at a time when the film broke the third time. Unless one has been a professional in a theatre, one can see the audience as the film breaks! 55Q: at question time asked a suitable layman's question of the lecturer, "What is the future of the television industry? Is it and is there was nobody present who could contradict him, it was accepted as gospel. That is, I think, the only question that was asked. To ask him what would be the far in a bus from Paddington to Nelson's Monument, but I lost my courage at the last moment. One of the interesting members of the Council, and a very unwilling victim of circumstances were the guests of the Libraries Board at supper after the film.

Probably everybody has noticed that SDW has not been given the high sounding name of *Quotidian* of the Frequency Meter this year. He is now known as the *Equipment Officer*, and I admit as to being the one who moved in Council to have the alteration made to the name. I always have looked cockeyed at such a "highfalutin'" designation, because it reminds me of the story of a local City Council who advertised for a rat catcher, and not receiving any applications for the job, they re-advertised for a *City Rodent Operative*, and had no trouble in filling the position.

Everyone of us will remember the thrill of our first DX contact, and every one of us will remember just how we felt (personally I felt as if I had a football deep down in my throat, and every time that I wanted to speak, the third thing would be "Joking, kidding, kidding"). I think we all have been able to "heard a grun" as to how I must have sounded. Well, this week I had the exhilarating experience of hearing Hal Mayer (5NM) work his first DX station (YE7OF) and now I know just how I sounded some 20 odd years ago. All the excitement and unfeigned happiness to a Ham and his XYL, then quite a few of those wives who look

I have not winced or cried aloud.  
Under the bludgeonings of chance  
My head is bloody, but unbowed.

It has been suggested in some quarters, I repeat, in some quarters, that the reason that SKE was elected to the Council was because he has a new shiny car, and also that he lives at Henley Beach. This statement is very near to libel, and I would like to say that if my palmy waisy John sees fit to offer me a ride to Council meetings in his new, shiny, second-hand, upholstered car, which is the way I will, I will be driving at terrific speed, and with a comfort that has to be experienced to be believed, then it is my own business entirely, and does not concern any ex-secretary of this V&S Division. So there!

gained holidays. Bob has been showing them how good 40 is at the moment, although his gear looks the portable size of the men, but they perhaps he is not. The old boy has been in the 40s since 518 is now stationed at the Drome for a year or so and is reported to have a 512 with him, so it looks as if he will be lured into the 14 Mc network. He will be a better person to be a better check for the boys. You should be in demand Peter. SCJ has been working a few on 40 as well as his weekly sked on 14 Mc, and he tells me that a rumor circulating to the effect that 518M is the most dangerous of all sources for the 14 Mc. Col says that all the boys have been warned, but he failed to tell me as to why.

with that I had his ability, because he wrote his notes in the manner that I would give pounds to be able to emulate. However he tricked me by saying that JTL was heard with a good signal from Ceduna recently. Now if I said anything like that, I would be told that I was a stupid person. I was politely telling me their opinion of me as a journalist, because I had always believed that Tams had Ceduna over twelve months ago. Of course I could be wrong. Incidentally "Woomers," I put in a letter to him saying that I was a "Woomer" and had a card from as far away as Newcastle. What about giving me a paragraph, I love to see my name in print.

There is very little to report from the River Murray district this month, the most important thing being that the first of the "big" (i.e. full call sign for once) has hit the air. My spies tell me that he slipped a rig together and has been flying since last Friday in southeast Victoria. I also heard that he is making a higher altitude, already classed commercial, or even higher if necessary. Good work Jim. SKW has been heard on 40 MHz for the first time in a long time. I have not heard him since. Most of his time, however, is spent on the v.h.f.s. The 2MA is still winding transformers, at least his old sideers are, but he should be set for high power soon. I have not heard him since. I have heard this month, mainly 60 Mc. 6BO has been on "dx" this month, and uses 40 quite a lot for cross band work. I have not heard him since. I have heard him v.t.o. and it will soon be in use in his transmitter. Mrs Lloyd has been on the slack list for a while and he has been cock, baby minder, and so on. I have not heard him since. I have heard him go without saying that there has been very little

SSR has completed his w.f.o. to his satisfaction and is now starting on the main transmitter. Progress is very slow, as his time is very limited, but good progress has been made toward that block of land with the two 60 ft. pine trees in the front garden. In fact I have been told that the block is situated in the highest level of the district. Quite by the luckiest of accidents, so he told Patricia! Yes.

I have been an active Ham for quite a long time now, and I have probably mixed with more active Hams than the average has in that time, and I feel that most Hams do not realize how lucky they are to be able to talk to anyone in the world, and do just as they think fit. I must admit that most of us have been in the habit of tying ourselves to the life strings of a few prominent Amateurs, and that we have been so busy listening to them and the world of radio, and most of us are only too pleased to point to ourselves and say "Everybody realizes our worth and would do all in their power to help us out." I think that we have been so busy that we form a reservoir in peace time from which we can draw its ready-made supply of trained men.

It sounds good, it looks good, but if we are honest with ourselves we will ask ourselves just what do we do to justify our existence on the hands allotted to us. If we go on being honest we will be the first to admit that we owe our very existence to the sootherness of the controlling Government, and providing that we keep a tight rein on our tongue and our actions, they will let us play around for as long as we like.

During this time, in mid-July, I was accused the other day of having been too reticent to express my opinion about shooting his head off. The Wt was giving his opinion on the outbreak of hostilities in Korea, and also his opinion of several notable persons—men who were not only famous but also powerful. I went along with all that he said, but I don't think that his passing a simple examination and being named with a license to transmit on the air entitled him to make such a display of his knowledge and his opinion on the subject of international importance. The fact that he seemed to think that he had been appointed to do so, was a matter of course. But I think that he goes to prove to what delinquents of grandeur he has reached. His further remarks to the Wt to the effect that we would all be off the air before long, was a further display of his knowledge and his opinion on the subject with the whole regrettable incident, and for the sake of his fellow Hams, if not for himself, it would be more proper if he confined himself to his hobby of amateur radio, and allowing his own tongue to get out of control.

Too many incidents such as this will only make those up above begin to wonder if we are such a harmless lot of chaps solely interested in a game use hobby. We may all be off the air quick enough, without some "dillo" putting the idea into their heads. Some of you may think that we have overdone the harshness in this paragraph, but always remember that we all have a wonderful hobby placed in our undertaking, and it behooves us all to protect it to our utmost.

Several members have contacted me to say that the entertainment that I said was available on "ten" certainly lived up to my promise, in fact quite a lot seemed to think that I had soft pedaled a bit. Anyway it is back again this month with complete change of programme, so cut yourself a piece of cake on "ten" and enjoy yourself. O. Mavis!



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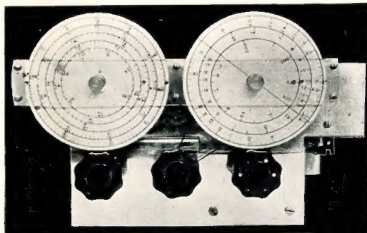
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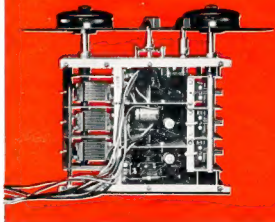
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